Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for forming a metallic overlay comprising:

supplying a metal substrate with a thermal expansion coefficient "**X**";

supplying a metallic alloy which has a thermal expansion coefficient "**Y**", wherein [[**Y>X**]] said metallic alloy has a coefficient of thermal expansion "**Y**" greater than 15% of that of said substrate "**X**" and wherein Fe and Cr comprises at least 90 wt % of said metallic alloy, and C is present at levels of about 1.0 wt %, and Mo is present at levels of about 1.0 - 2.0 wt %;

melting said metallic alloy and applying said metallic alloy to said metal substrate to form an alloy/substrate interface;

forming metallurgical bonds between said metallic alloy and said substrate at said alloy/substrate interface; and

causing said alloy to shrink while said alloy is constrained at said alloy/substrate interface thereby developing a residual compressive stress in said metallic alloy, wherein said metallic alloy has a hardness of greater than 750 kg/mm^2.

2. (Original) The method of claim 1 wherein said alloy is comprised of a mixture of Fe, Cr, Mo, W, B, C, Si and Mn.

3. (Original) The method of claim 2, wherein Fe is present at levels above 50.0 wt %.

4. (Original) The method of claim 2, wherein Fe, Cr, Mo, and W comprise at least 90 wt % of said mixture.

5. (Cancelled)

6. (Currently Amended) The method of claim 1 wherein Fe and Cr comprise at least 90 wt. % of said ~~mixture~~ metallic alloy, ~~and Cr is present at levels of about 1.0 wt. %,~~ and Mo is present at levels of about 1.0 – 2.0 wt. %, and [[W]] B is present at levels of about 3.0 – 4.0 wt %, [[B]] W is present at levels of about 1.0 – 2.0 wt %, C is present at levels of about 0.1 – [[1.0]] 1.2 wt %, Si is present at levels of 0.1 – 1.0 wt % and Mn is present at levels of 0.1 – 1.0 wt %.

7. (Original) The method according to claim 2 wherein said metallic alloy has a composition of about 65.9 wt % Fe, 25.3 wt % Cr, 1.0 wt % Mo, 1.8 wt % W, 3.5 wt % B, 1.2 wt % C, 0.5 wt % Si, 0.8 wt % Mn.

8. (Original) The method according to claim 2 wherein said metallic alloy has a composition of 64.9 wt % Fe, 26.0 wt % Cr, 1.0 wt % Mo, 1.4 wt % W, 3.6 wt % B, 1.2 wt % C, 1.0 wt % Si, 0.8 wt % Mn.

9. (Original) The method according to claim 1 wherein said metallic alloy has a composition of 68.0 wt % Fe, 23.2 wt % Cr, 1.2 wt % Mo, 1.5 wt % W, 3.6 wt % B, 0.9 wt % C, 0.7 wt % Si, 0.8 wt % Mn.

10. (Original) The method according to claim 1 wherein applying said metallic alloy comprises welding.

11. (Original) The method according to claim 1 wherein applying said metallic alloy comprises thermal spray coating.

12. (Cancelled)

13. (Original) The method according to claim 1 wherein said ~~iron-based~~ metallic alloy has a coefficient of thermal expansion in the range of 12 to 17 ppm/°C.

14. (Cancelled)

13 ~~15.~~ (Currently Amended) The method of claim [[14]] 16 wherein said compressive yield strength is greater than about 1520 MPa at room temperature.

12 ~~16.~~ (Currently Amended) A method for forming a metallic overlay comprising:

supplying a metal substrate with a thermal expansion coefficient "**X**";

supplying a metallic alloy which has a thermal expansion coefficient "**Y**", wherein [[**Y>X**]] said metallic alloy has a coefficient of thermal expansion "**Y**" greater than 15% of that of said substrate "**X**" and wherein said metallic alloy has a yield strength "**Z**" and wherein Fe and Cr comprises at least 90 wt % of said metallic alloy, and C is present at levels of about 1.0 wt %, and Mo is present at levels of about 1.0 - 2.0 wt %;

melting said metallic alloy and applying said metallic alloy to said metal substrate to form an alloy/substrate interface;

forming metallurgical bonds between said metallic alloy and said substrate at said alloy/substrate interface; and

causing said alloy to shrink while said alloy is constrained at said alloy/substrate interface thereby developing a residual compressive stress in said metallic alloy, wherein said compressive stress does not exceed the yield strength "**Z**" and wherein said metallic alloy has a hardness of greater than about 850 kg/mm^2.

17. (Withdrawn) A method for forming a metallic overlay comprising:

supplying a metal substrate;

supplying a metal alloy;

melting said metal alloy and applying said metallic alloy to said metal substrate to form an alloy/substrate interface;

forming metallurgical bonds between said metallic alloy and said substrate at said alloy/substrate interface; and

causing said alloy to cool to provide said alloy with a fracture toughness greater than 200 MPa $m^{1/2}$ and a hardness greater than 5 GPa.